

**APPENDIX I
AIRSPACE OBSTRUCTION ANALYSIS**

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I1 Introduction – Objects Affected Navigable Airspace

As set forth in Title 49 of the U.S. Code of Federal Regulations, §40103, “The United States Government has exclusive sovereignty of airspace of the United States.” In protecting and administering the use of U.S. airspace,

The Administrator [of the FAA] shall prescribe air traffic regulations on the flight of aircraft (including regulations on safe altitudes) for -----

- (A) Navigating, protecting, and identifying aircraft;
- (B) Protecting individuals and property on the ground;
- (C) Using the navigable airspace efficiently; and
- (D) Preventing collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects.

The FAA carries out these responsibilities through a variety of means. The primary means by which the FAA analyzes proposed construction or alteration (“protecting individuals and property on the ground”) that may affect navigable airspace is through the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) process.

A structure proponent must file FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, for any proposed construction or alteration that meets any of the following *Notification Criteria* described in FAR Part 77.13:

- §77.13(a)(1) – A height more than 200 feet AGL at its site;
- §77.13(a)(2) – Within 20,000 feet of a runway more than 3,200 feet in length, and exceeding a 100:1 slope imaginary surface (i.e., a surface rising 1 foot vertically for every 100 feet horizontally) from the nearest point of the nearest runway. (Different standards apply with proximity to airports with no runways greater than 3,200 feet in length, and heliports);
- §77.13(a)(3) – Roadways, railroads, and waterways are evaluated based on heights above surface providing for vehicles; by specified amounts or the height of the highest mobile object normally traversing the transportation corridor;
- §77.13(a)(4) – When requested by the FAA, any construction or alteration that would be in an instrument approach area and may exceed 14 CFR Part 77 obstruction standards; or,
- §77.13(a)(5) – Any construction or alteration on any public-use or military airport.

Structure proponents or their representatives may file online at the FAA’s OE/AAA website, <http://oecaa.faa.gov>.

The FAA conducts an initial aeronautical study to determine whether the proposal would exceed obstruction standards under the provision of the FAR Part 77.23. An object constitutes an obstruction to air navigation if any of the following obstruction standards are exceeded:

- §77.23(a)(1) – A height more than 500 feet AGL at the object site.
- §77.23(a)(2) – A height AGL or above the airport elevation, whichever is greater, exceeding 200 feet within 3 nautical miles (NM) of the airport, and that height increases at a rate of 100 feet per NM up to 500 feet within 6 miles.

- §77.23(a)(3) – A height that increases a minimum instrument flight altitude within a terminal area. This standard references instrument procedure criteria such as TERPS.
- §77.23(a)(4) – A height that increases a minimum obstruction clearance (MOCA) under enroute criteria.
- §77.23(a)(5) – The surface of a take-off and landing area of an airport or any imaginary surface defined in later sections: §77.25 for civil airports, §77.28 for military airports, and §77.29 for heliports.

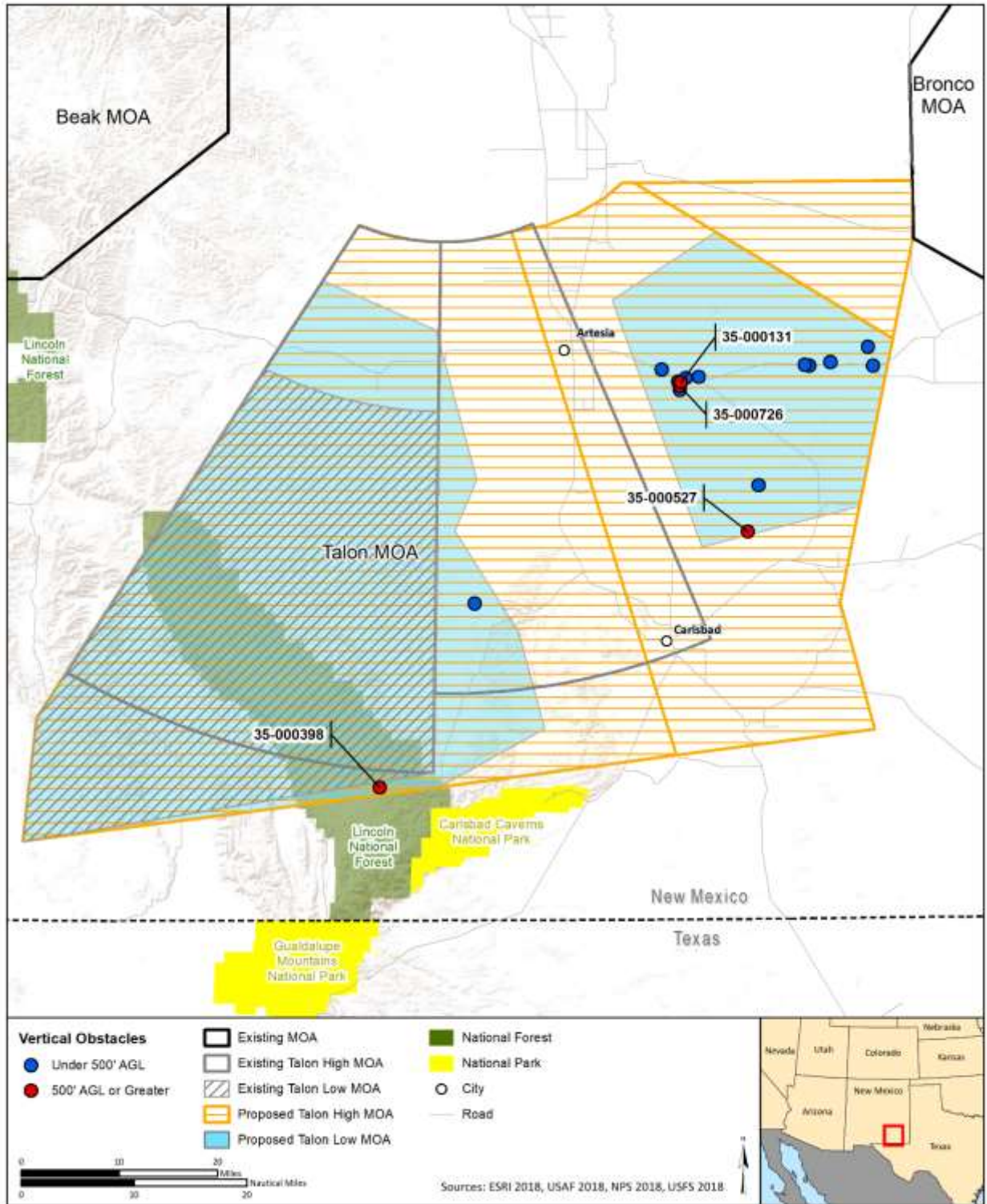
I2 Airspace Obstructions Beneath Proposed Airspace

Obstructions within each of the proposed low MOAs are shown below. Highlighted obstacles exceed the proposed 500 feet AGL floor of the low MOAs. As shown, only four obstacles are 500 ft AGL or greater. All are located in the proposed Talon Low A and B MOAs, as shown in **Figure I2-1**.

MOA Name	Obstacle ID	Height AGL (feet)	Obstacle Type	Lighting Type	Latitude	Longitude
LOBOS	35-001370	260	TOWER	D	32.7632	-108.1387
LOBOS	35-000038	206	TOWER	R	32.7814	-108.2703
LOBOS	35-022240	199	TOWER	N	32.5982	-108.9707
LOBOS	35-000155	199	TOWER	N	32.7808	-108.2000
LOBOS	35-031929	180	TOWER	N	32.9154	-107.9987
LOBOS	35-000847	124	TOWER	N	32.5823	-108.4252
LOBOS	35-022955	100	TOWER	N	32.7852	-108.2444
LOBOS	35-000275	70	TOWER	N	32.9244	-108.1797
LOBOS	35-031210	66	TOWER	N	32.5824	-108.4254
SMITTY	35-000741	364	TOWER	N	34.1545	-106.9303
SMITTY	35-000183	335	TOWER	D	34.0380	-107.4464
SMITTY	35-000793	303	TOWER	D	33.4651	-107.2428
SMITTY	35-000373	153	TOWER	R	34.1428	-107.2183
TALON	35-000131	1,054	TOWER	R	32.7939	-104.2083
TALON	35-000527	715	TOWER	R	32.5728	-104.0928
TALON	35-000398	513	TOWER	R	32.1972	-104.7370
TALON	35-000726	500	TOWER	D	32.7881	-104.2097
TALON	35-020008	486	TOWER	D	32.7950	-104.2133
TALON	35-000752	460	TOWER	R	32.8004	-104.1994
TALON	35-001292	349	TOWER	D	32.8171	-103.9833
TALON	35-000082	320	TOWER	R	32.8022	-104.1769
TALON	35-020036	306	TOWER	D	32.8164	-103.8710
TALON	35-022594	259	TOWER	D	32.6410	-104.0740
TALON	35-000057	230	TOWER	U	32.8222	-103.9464
TALON	35-000873	220	TOWER	D	32.8132	-104.2417
TALON	35-031620	195	TOWER	N	32.8183	-103.9911
TALON	35-031169	190	ANTENNA	N	32.7824	-104.2096
TALON	35-000361	170	TOWER	U	32.4692	-104.5706
TALON	35-006013	150	TOWER	U	32.8444	-103.8797

Source: FAA 2018

Notes: AGL = Above Ground Level; D = Medium Density White Strobe & Red; R = Red; N = None; U = Unknown

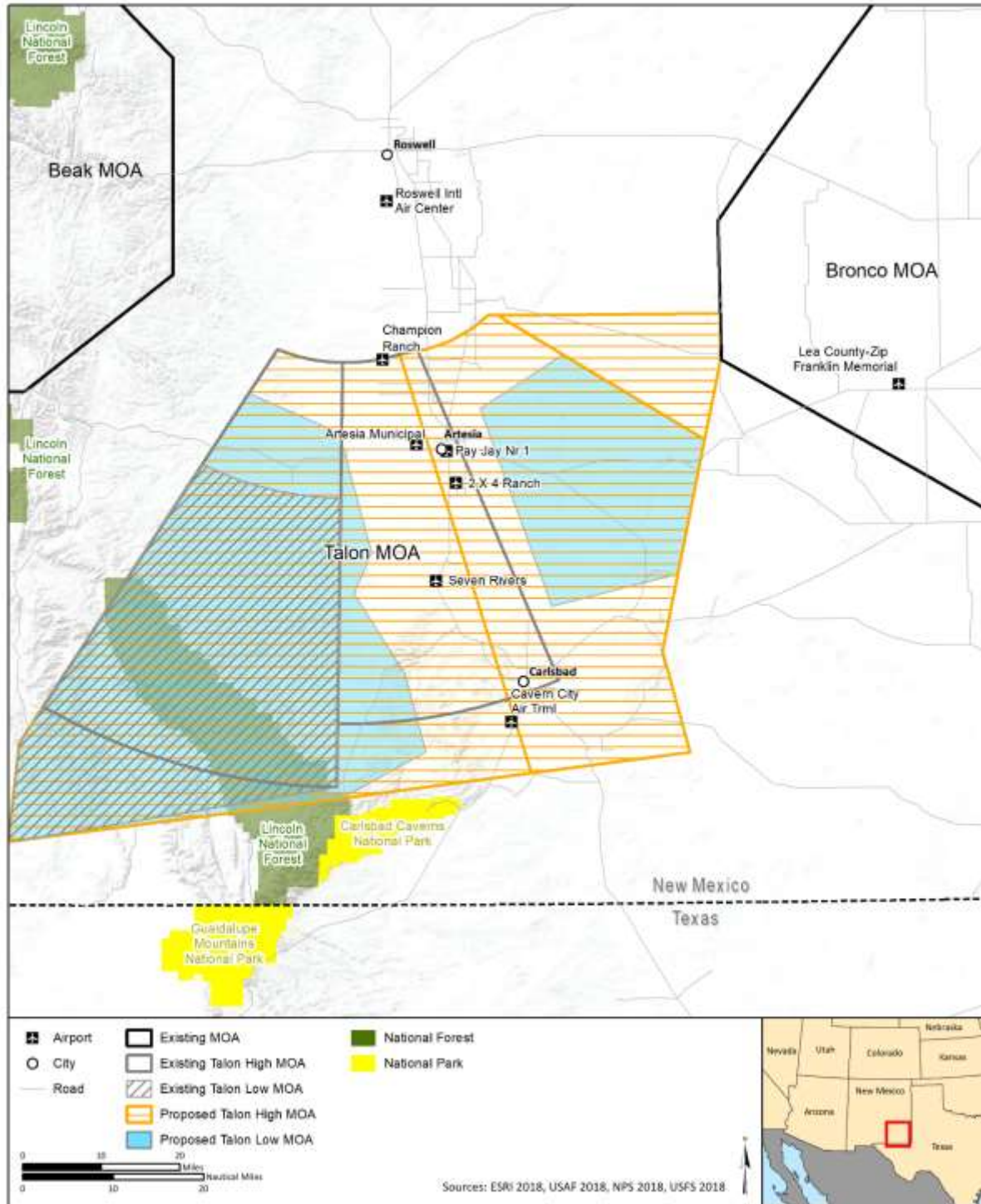


Legend: MOA-Military Operations Area; AGL-Above Ground Level

Figure I2.1 Obstructions under Talon Low A and Low B MOA Airspace

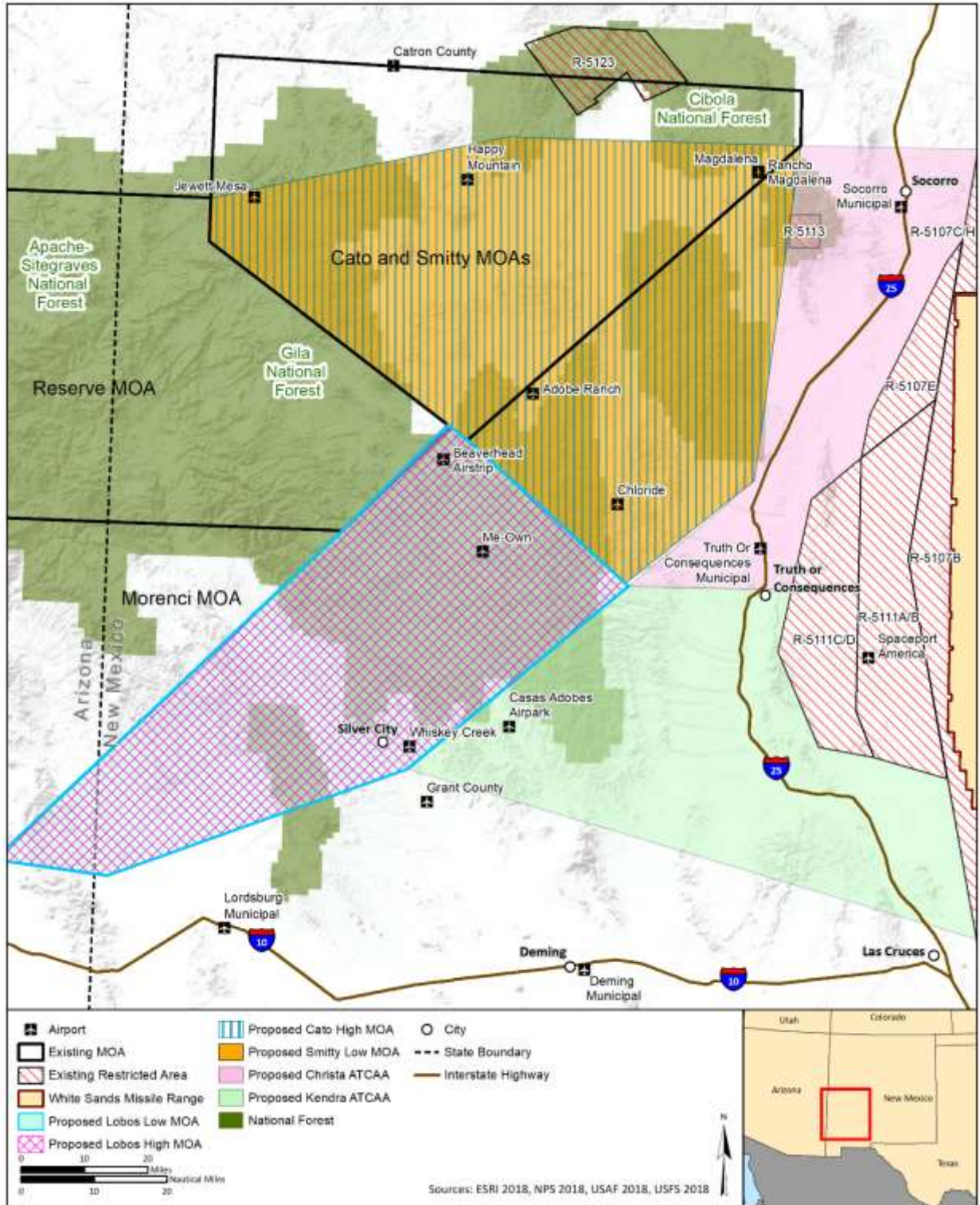
I3 Airfields Beneath Proposed Airspace

Currently, 24 airfields exist within the project airspace. These can be seen in **Figures I3-1 and I3-2**.



Legend: MOA-Military Operations Area.

Figure I3-1. Airfields within Existing and Proposed Talon MOA

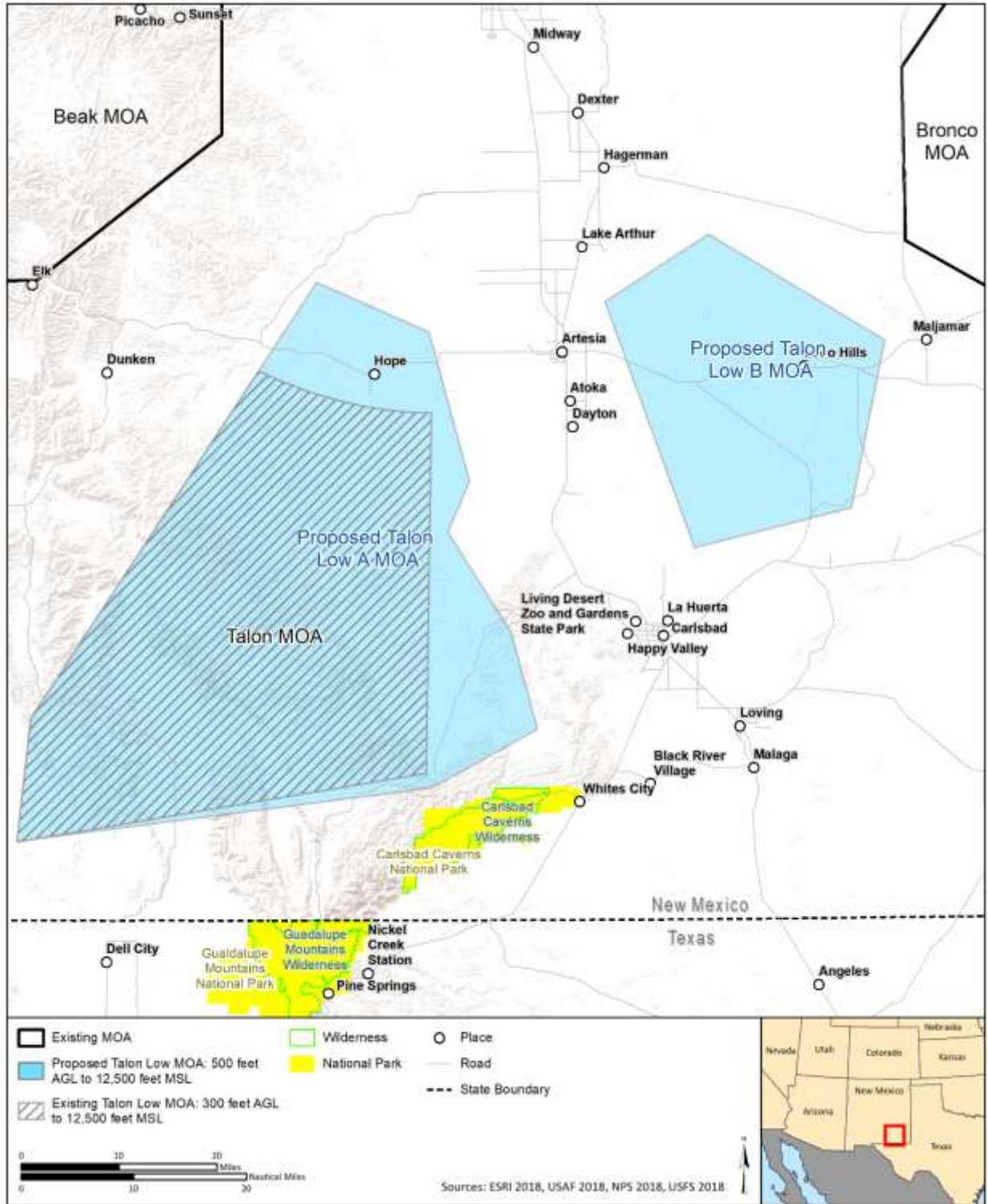


Legend: MOA-Military Operations Area.

Figure I3-2. Airfields within the Existing and Proposed Smitty and Lobos MOAs

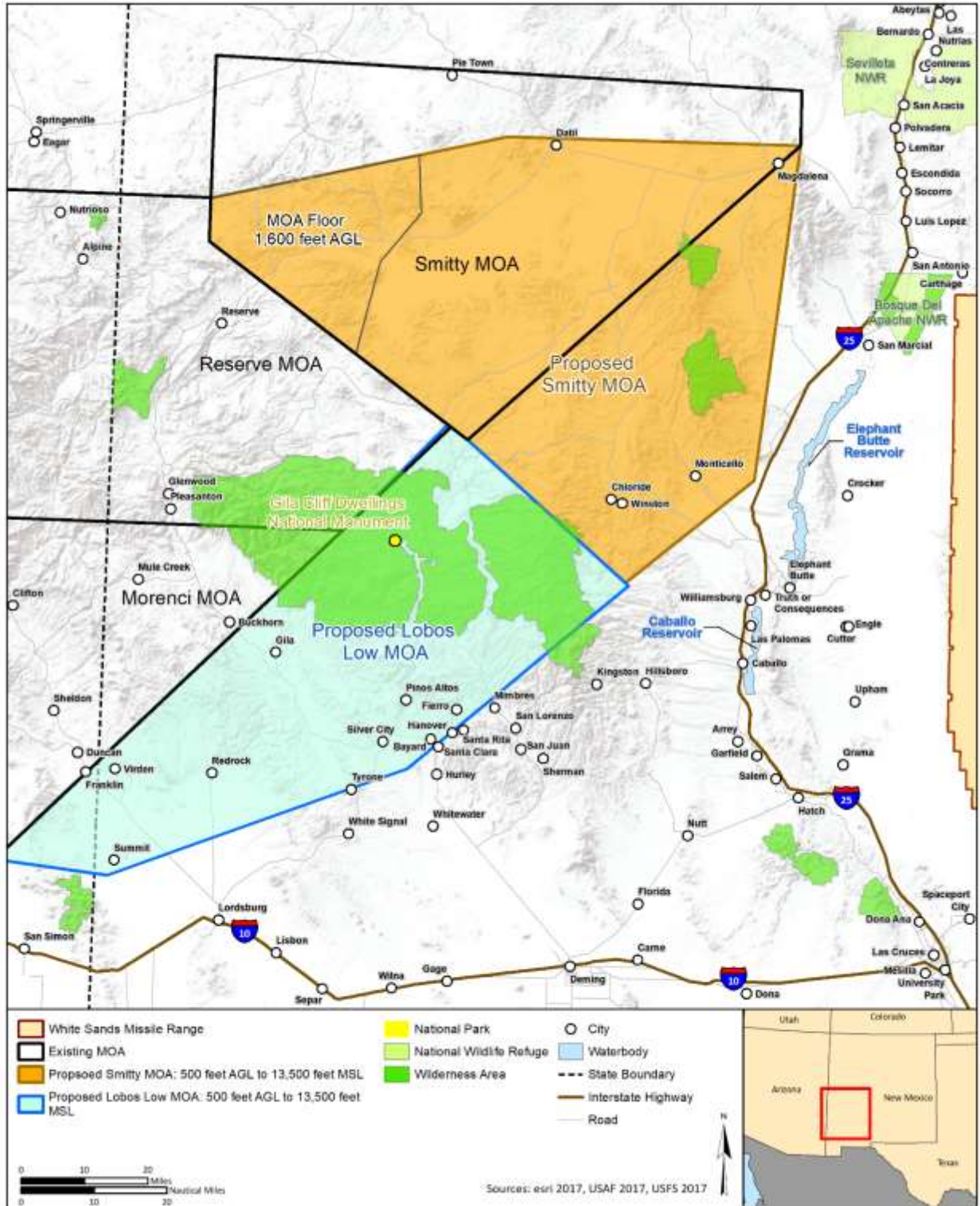
I4 Areas with Overflight Restrictions within Proposed Action

Within the existing Smitty MOA, the western portion that partially overlies Gila National Forrest is currently charted with a minimum altitude of 1,600 feet AGL. This would continue to occur within the proposed Smitty MOA. Additionally, in accordance with the Aeronautical Information Manual (paragraph 7-4-6), pilots are requested to maintain a minimum altitude of 2,000 feet above the surface of the following: National Parks, Monuments, Seashores, Lakeshores, Recreation Areas and Scenic Riverways administered by the National Park Service; National Wildlife Refuges, Big Game Refuges, Game Ranges and Wildlife Ranges administered by the U.S. Fish and Wildlife Service; and Wilderness and Primitive areas administered by the U.S. Forest Service. In accordance with FAA minimum safe altitudes (14 CFR 91.119), aircraft must avoid congested areas of a city, town, or settlement or any open-air assembly of people by 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft. Outside congested areas, aircraft must avoid persons, vessels, vehicles, or structures by 500 feet. **Figures I4-1 and I4-2** show the areas that qualify for these restrictions. These restrictions only apply to the proposed low MOAs since the floor of the proposed high MOAs would be well above the 2,000 feet AGL restriction.



Legend: MOA-Military Operations Area.

Figure I4-1.Areas under Proposed Talon Low MOAs Subject to Avoidance



Legend: MOA-Military Operations Area.

Figure I4-2. Areas under Proposed Smitty and Lobos Low MOAs Subject to Avoidance